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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/668,823	09/22/2003	Mithra M. K. V. Sankrithi	81015/7400	1958

22242 7590 04/26/2005

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EXAMINER

COLLINS, TIMOTHY D

ART UNIT	PAPER NUMBER
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3643

DATE MAILED: 04/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/668,823

Applicant(s)

SANKRITHI, MITHRA M. K. V.

Examiner

Timothy D Collins

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13, 15-40 and 44-51 is/are pending in the application.
- 4a) Of the above claim(s) 7-12 and 34-39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 13, 15-33, 40 and 44-51 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-6,13,15-19,21-23,26-29,32,33,44-51 are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 5992797 to Siedel et al. (hereinafter called 797).

a. Re claim 1, 797 discloses a cross-section with a second side (the top side passenger area) with a second curvature and a first side (bottom side passenger and cargo area) with a first curvature. The first and second curvatures being different. All this can be seen at least in figure 3. Note that the claim does not specify that a "side" must be a left or right side and does not give any frame of reference. Also note that if the aircraft does a roll, the top and bottom will be the left and right sides and it is the top and bottom sides as seen in the figure.

b. Re claim 2, 797 also discloses first and second widths of the sides. Also note that the width may be the left to right dimension or the top to bottom dimension.

c. Re claim 3, 797 discloses a storage compartment coupled to the first side above the seats as seen in the first side (which can be seen in the bottom section

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of the figure 3, and a seat in the cross-section. Note: there are many seats in both sides.

d. Re claim 4, 797 discloses that there is an aisle in the second side (as seen between the two sets of 3 seats, and this is between the seats and the storage compartment which is in the first side.

e. Re claims 5 and 6, 797 discloses as seen at least in the figure 3, that the curvatures of the first and second sides are elliptical.

f. Re claim 13, 797 discloses an aisle and a seat inside the cross-section as seen in figure 3. There are many seen here, at least 3 aisles and at least 16 seats.

g. Re claim 15, 797 discloses inherently that the fuselage is "designed" to travel at supersonic speeds, because given enough power it can travel at supersonic speeds. Also many individual sections of aircraft have supersonic flow at some points in flight and therefore these sections are traveling at supersonic speeds with respect to the flow. Note: the term "designed" is taken as functional language and it is suggested that the applicant positively claim that the aircraft travels at supersonic speeds. Also the craft of the claims does not ever have to travel at supersonic speeds because this is not positively claimed, so the craft may be "designed" for a flight regime which it will never see.

h. Re claim 16, 797 discloses that the fuselage is designed to travel over land with reduced sonic boom signature inherently. The term "designed" is functional language and also the statement "reduced" sonic boom does not have

any reference. The craft of 797 does have a reduced sonic boom with respect to a large cube flying at supersonic speeds and therefore it meets the limitations of the claim. Also it is noted that the craft produces no sonic boom when traveling at very low speeds. See claim 15 above.

i. Re claims 17 and 18, see rejection of claims 5 and 6 above.

j. Re claim 19, as seen in figure 3, 797 discloses a craft with a reduced cross-sectional area with respect to a craft with a fuselage height that is equal that has a circular cross-section.

k. Re claim 21, 797 discloses that the craft has a cross-sectional area that is reduced relative to one with equal curvatures, because if one has the same curvature as the first side of the present craft but had two that were the same, it would have a larger area.

l. Re claim 22, 797 discloses a height, and also first and second widths as seen in the rejection of claim 2 above.

m. Re claim 23, see rejections of 1, 2 and 21 above.

n. Re claim 26, 797 discloses a first side with first curvature (as seen in the top side of the craft of figure 3), and a second side with a second curvature (as seen in the bottom side of the craft of figure 3). The two sides being coupled together and a storage compartment, seat and aisle in the fuselage. The first and second curvatures being different.

o. Re claim 27, 797 discloses that there is an aisle between the seat and the storage compartment. This can be seen at least in figure 3 in that there are

seats on the right side of the second side and storage compartments on the top of the left side of the second side, with aisles between them.

p. Re claim 28, 797 discloses that there is a first width of the first side and a second width of the second side.

q. Re claim 29, 797 discloses that the curvatures are elliptical and also that the second width is greater than the first width.

r. Re claims 32 and 33, 797 discloses that both the curvatures are elliptical.

s. Re claim 40, 797 discloses that the storage compartment and the seat are on the same side of the aisle, as can be seen in the second side of the craft of figure 3.

t. Re claim 44, the examiner takes the term “widow” to be “window”, as humans cannot be claimed, therefore a “widow” could not be intended. It is suggested that the applicant fix this typo. 797 discloses at least inherently that there is a window in the fuselage because the pilots must be able to see and therefore there must be a window at least in the cockpit of the aircraft. Also as seen in figure 4, windows are visible.

u. Re claim 45, 797 discloses doors as seen in the figures at least at number 28.

v. Re claim 46, see rejection of claim 19 above.

w. Re claim 47, 797 discloses that the sonic boom signature is reduced related to the section of the other fuselage of claim 46, inherently, because the craft has a smaller cross-section.

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- x. Re claim 48, see number 46 above. This is a copy of the claim.
  - y. Re claim 49, see number 47 above. This is a copy of the claim.
  - z. Re claim 50, see rejection of claim 21 above.
  - aa. Re claim 51, 797 discloses that the sonic boom signature is reduced related to the section of the other fuselage of claim 46, inherently, because the craft has a smaller cross-section.
3. Claims 1,2,5,6,15,16,17,18,19,21, and 22 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by USPN 4000871 to DeHaai (hereinafter called 871).
- bb. Re claim 1, 871 discloses a cross-section with a first side and first curvature 11's (both of the them), and a second side with a second curvature 21. The curvatures being different.
4. Claims 1,2,5,6,13,15,16,17,18,19,20,21,22, 23,24 and 25 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by USPN 4828204 to Friebe (hereinafter called 204).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over 797 as seen above.

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cc. Re claim 30, 797 may not disclose that the first width is between 20 and 30 inches and the second between 37.65 and 47.65. However it would have been an obvious matter of design choice to use these dimensions, since applicant has not disclosed that these solve any stated problem or that it is for any particular purpose and it appears that the invention would perform equally well with some other dimensions. Also through routine testing and experimentation the optimum values could be found, so as to minimize cost and fuel consumption for a particular speed and altitude.

dd. Re claim 31, 797 may not disclose that the height is between 87 and 97 inches and area is between 4650 and 5150 sq. inches. However it would have been an obvious matter of design choice to use these dimensions, since applicant has not disclosed that these solve any stated problem or that it is for any particular purpose and it appears that the invention would perform equally well with some other dimensions. Also through routine testing and experimentation the optimum values could be found, so as to minimize cost and fuel consumption for a particular speed and altitude.

### ***Claim Objections***

7. Claims 48, 49 and 44 are objected to because of the following informalities:

ee. Re claims 48 and 49, these are a copy of the claims 46 and 47

ff. Re claim 44, the term "widow" is taken to mean "window". Correction of this typo is needed.



Appropriate correction is required.

***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following disclose fuselage cross-sections.

gg. USPN 5086996 This could support a rejection similar to 797

hh. USPN 3155348 This could support a rejection similar to 797

ii. USPN 6394392 This could support a rejection similar to 797

jj. USPN 6851650

kk. USPN 4483497

ll. USPN 3009669

9. NOTE: it is suggested that the applicant positively claim the reference frame for directions of the claims. Also positively claim supersonic flight. Also it is suggested that the applicant specify clearly that the curvatures that are different are on the left and right sides of the fuselage in such a way that merely rolling an aircraft will not read on them. Also note that if you take a circular cross-section you can make it read on claims like number 1 easily by calling the left 1/3 of the circumference the first side and the rightmost 2/3 the second side. This is because the first and second curvatures would be "different" by being the inverse.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy D Collins whose telephone number is 571-272-6886. The examiner can normally be reached on M-F, 7:00-3:00, with every other Fri. off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Poon can be reached on 571-272-6891. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Timothy D. Collins  
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4/22/05